IN THE SPECIFICATION:

Kindly amended the Specification as follows:

Kindly replace line 28 on page 3, as follows:

This object is achieved ~~as claimed in patent claim 1~~ in that with the known

Kindly replace lines 10-11 on page 4, as follows:

according to the invention is recommended for several variants of the GIS training algorithm ~~as they are described in the dependent claims 12 and 13~~.

Kindly replace lines 13-14 on page 4, as follows:

system based on the maximum-entropy speech model MESM ~~as claimed in claim 14~~ and a training system for training the MESM ~~as claimed in claim 15~~.

Kindly replace lines 1-13 on page 5, as follows:

Figs. 1 and 1b illustrate a method according to the invention of calculating an improved desired orthogonalized boundary value m_α^{ortho} for an attribute α =[[β0]] β_0 in a speech model. In a first step of the method all the attributes [[βi]] $\underline{\beta_i}$ with i = 1 ... g that have a so-termed larger range than the predefined attribute $\alpha = \beta_0$ i.e. which include this at a predefined position are determined in accordance with this method. Subsequently, in a method step S2 a desired boundary value [[mβi]] $\underline{m\beta_i}$ of the original training object is calculated for all the attributes [[βi]] $\underline{\beta_i}$ with i = 0 ... g, thus also for the attribute α = [[β0]] β_0.

For the calculation of such a desired boundary value [[mβi]] $\underline{m\beta_i}$, several methods are known in the state of the art.

According to a first method the calculation is made in that first a frequency N([[βi]] $\underline{\beta_i}$) is determined with which the associated binary attribute function [[fβi]] $\underline{f\beta_i}$

yields the value 1 when a training corpus of the speech model is used and that, subsequently, the thus determined frequency value N([[βi]] β_i) is smoothed.

Kindly replace lines 22-30 on page 5, as follows:

In a method step S3 all the attributes [[βi]] $\beta_{i\,i}$ are subsequently sorted according to their range where an attribute [[βi]] β_i that has the largest range is assigned the index i = g. It may then certainly happen that individual classes of ranges thus, for example, the class of bigrams or the class of trigrams are assigned a plurality of attributes [[βi]] β_i. In these cases a plurality of attributes [[βi]] β_i having different, but successive indices i are assigned to one and the same class of ranges i.e. these attributes then always have the same RW and belong to the same class of ranges.

For the method to be carried out, in which in the successive steps the individual attributes [[βi]] β_i are evaluated one after the other, it is important for the attributes to be

Kindly replace lines 1-20 on page 6, as follows:

In a subsequent method step S6 a check is then made whether larger-range attributes [[βk]] β_k occur with $i < k \leq g$ for the currently selected attribute β_i, which include the attribute [[βi]] β_i. With the first run the attribute [[βi]] β_i with i = g automatically belongs to the class that has the largest range, as observed above, and therefore the query in the method step S6 is to be answered in the negative for this attribute [[βi]] β_i. In this case the method jumps to method step S8 where a parameter X is set to zero. Then a calculation is made of an improved desired orthogonalized boundary value $m_{\beta i}^{ortho}$ for the attribute [[βi]] β_i (with a first run with i = g) in accordance with method step S9. As can be seen there, this boundary value for the attribute [[βi]] β_i is set equal to the desired boundary value [[mβi]] $m\beta_i$ calculated in step S2, if the parameter X = 0 (this is the case, for example, during the first run).

The method steps S5 to S11 are then successively repeated for all the attributes [[βi-1]] β_{i-1} with i-1 = g-1 ... 0. In the method step S10 the index i is re-

initialized, which is necessary, and in method step S11 a query is made whether all the attributes [[βi]] $\underline{\beta_i}$ with i = 0 ... g have been processed.

For all attributes [[βi]] $\underline{\beta_i}$ for which there are attributes [[βk]] $\underline{\beta_k}$ with i < k ≤ g that have a larger range, the query in method step S6 must be answered with "Yes". The parameter X is then not set to zero but is instead calculated according to method step S7 by totaling the corresponding improved desired orthogonalized boundary values $m_{\beta k}^{ortho}$ each calculated in previous run-throughs in method step S9 for the respective attributes [[βk]] $\underline{\beta_k}$ that have a larger range.

Kindly replace lines 10-17 on page 8, as follows:

smoothed. This smoothing is effected here, for example, by subtracting the value [[0,1]] 0.1. Thus the following normal desired boundary values are the result:

[[mα]] $\underline{m_\alpha}$: "HOUSE" = 4 – [[0,1 = 3,9]] 0.1 = 3.9

[[mβ1]] $\underline{m\beta_1}$: "WHITE HOUSE" = 2 – [[0,1 = 1,9]] 0.1 = 1.9

[[β2]] $\underline{m\beta_2}$: "A WHITE HOUSE" = 1 – [[0,1 = 0,9]] 0.1 = 0.9.

Kindly replace line 26 on page 8, as follows:

$$m_{\beta 1}^{ortho} = m_{\beta 1} - m_{\beta 2}^{ortho} = [[1{,}9 - 0{,}9]] 1.9 - 0.9 = 1 \qquad (6)$$

Kindly replace line 30 on page 8, as follows:

$$m_{\alpha}^{ortho} = m_{\alpha} - m_{\beta 1}^{ortho} - m_{\beta 2}^{ortho} = [[3{,}9 - 1 - 0{,}9]] 3.9 - 1 - 0.9 = 2 \qquad (7)$$

Kindly replace lines 18-19 on page 11, as follows:

[[Ai(n)]] $\underline{A_{i(n)}}$:represents an attribute group [[Ai(n)]] $\underline{A_{i(n)}}$ with 1 ≤ i ≤ m selected in the n^{th} iteration step